

0.1 to 5.0 mm relative to the bottom wall, the bottom wall having a flat shape and a bottom wall diameter in a range of 60% to 90% of the annular ground portion diameter, the external rising wall having an external rising wall angle of inclination in a range of 5° to 30°, the internal rising wall having an internal rising wall angle of inclination in a range of 65° to 110°.--

REMARKS

Claims 1, 2, 5-10 and 12-16 are pending in the application. By this Amendment, claims 1, 10 and 14 are amended and claim 16 is added.

Applicants express their appreciation for the courtesies and helpful comments made by Examiner Madsen during a personal interview on October 29, 2002, with Applicant s' representative. The points discussed during the personal interview are incorporated into this Amendment.

In the final Office Action dated August 1, 2002, Claims 10 and 12-15 are rejected under 35 U.S.C. §112 first and second paragraphs. The claims are amended to obviate the rejection.

Claims 1, 2 and 5-9 are rejected under 35 U.S.C. §103(a) as being unpatentable over Morita (JP 55023951) in view of Kaper et al. (U.S. Patent No. 6,024,996), Yamamoto et al. (JP 01252274), Lyu (U.S. Patent No. 3,905,507), MacPherson (U.S. Patent No. 4,402,419) and Yamaguchi (U.S. Patent No. 4,431,112).

Claim 1 is directed to a low positive pressure canned food having an internal pressure inspection aptitude in which contents are filled and sealed in a seamless can and includes a body and a bottom thereof molded integrally so that can internal pressure assumes at least a low positive pressure state with respect to the outside atmospheric pressure. Claim 1 recites that the bottom of the seamless can has an annular ground portion and the annular ground portion includes an external rising wall. Claim 1 further recites that the external rising wall has a first inclined portion inclined away from a longitudinal centerline of the can and a second inclined portion inclined away from the longitudinal centerline of the can and having a slope greater than the first inclined portion.

It is respectfully submitted that none of the applied art, alone or in combination, teaches or suggests the features of claim 1. Specifically, none of the applied art teaches or suggests and external rising wall having a first inclined portion inclined away from a longitudinal centerline of the can and a second inclined portion inclined away from the longitudinal centerline of the can and having a slope greater than the first inclined portion. Thus, one of ordinary skill in the art would not be motivated to combine the features of the applied art because such combination would not result in the claimed invention.

Claims 2 and 5-9 depend from claim 1 and include all of the features of claim 1. Thus, it is respectfully submitted that the dependent claims are allowable at least for the reasons the independent claim is allowable as well as for the features they recite.

It is respectfully submitted that claims 1, 2 and 5-9 are allowable over the applied art.

In the final Office Action, claims 10, 12 -15 are rejected under 35 U.S.C. §103(a) as being unpatentable over Lyu in view of McPherson and Yamaguchi.

Claim 10 is directed to a can for low positive pressure canned food having an internal pressure inspection aptitude in which contents are filled and sealed so that can internal pressure assumes at least a low positive pressure state in a range of 0.2 kgf/cm² and 0.8 kgf/cm² at room temperature and with respect to an outside atmospheric pressure and includes a body and a bottom seamlessly molded integrally there with. Claim 10 recites that the bottom has an annular ground portion that includes an external rising wall having a first inclined portion and a second inclined portion. Claim 10 further recites that the first inclined portion is inclined away from a longitudinal centerline of the can and the second inclined portion is inclined away from the longitudinal centerline of the can and has a slope greater than the first inclined portion.

It is respectfully submitted that none of the applied art, alone or in combination, teaches or suggests the features of claim 10. Specifically, the applied art fails to teach or suggest that of bottom that has an annular ground portion that includes an external rising wall having a first inclined portion and a second inclined portion. Further, the applied art fails to teach or suggest that the first inclined portion is inclined away from a

longitudinal centerline of the can and the second inclined portion is inclined away from the longitudinal centerline of the can and has a slope greater than the first inclined portion.

Claims 12-15 depend from claim 10 and include all of the features of claim 10. Thus, the dependent claims are allowable at least for the reasons the independent claim is allowable as well as for the features they recite.

It is respectfully submitted that claims 10 and 12-15 are allowable over the applied art.

Claim 16 also includes features not shown in the applied art.

Furthermore, it is respectfully submitted that there are differences between the claimed invention and Lyu, to wit:

(1) DEFINITE DIMENSIONS

In Lyu, the range of dimensions is prescribed as follows:

$$\begin{array}{ll} D2=0.85 \text{ to } 0.95D1 & R1=3.0 \text{ to } 5.0T1 \\ H1=8.0 \text{ to } 15T1 & H2=15 \text{ to } 25T1 \end{array}$$

On the other hand, in the claimed invention, values of dimensions indicated in the Embodiment 1 are as follows:

$$\begin{array}{lll} T1=0.18 \text{ mm} & H1=3.3 \text{ mm} & H2=5.2 \text{ mm} \\ H1=8.0 \text{ to } 15T1 & D2=46.8 \text{ mm} & \end{array}$$

Therefore, the values result in:

$$\begin{array}{ll} H1=18.3T1 & H2=28.9T1 \end{array}$$

Which are clearly the outside the range of Lyu.

(2) SHAPE

The bottom shape according to the claimed invention is that in order to improve the pressure resistance performance, an angle of inclination α of the rising wall from the ground portion to the outer side is narrowed, and further the ground portion is made closer to the inside-diameter side to thereby reduce the pressure that is received by the bottom on the inside-diameter side from the ground portion. Accordingly,

it is essential that a step change (inflection point) is formed in the rising wall connected the annular ground portion to a lower end of a body wall.

In short, an outside of the annular ground portion constitutes an external rising wall including a first inclined portion inclined rising outwardly of the can and a second inclined portion inclined externally to be larger than the first inclined portion. However, Lyu merely discloses that the side wall 12 and the bead 16 are connected by the arcuate portion 24 slightly inclined internally (see column 3, lines 23 to 26).

On the other hand, from a viewpoint of tap test aptitudes, it is necessary to make the diameter of the flat portion in the central portion of the can bottom as large as possible in order to lower the natural frequency of circular plate. Thus, the second difference between the claimed invention and Lyu is the provision of the construction in which the R3 portion as prescribed in Lyu is not provided but an angle of inclination of the internal rising wall is suitably used to thereby enable forming a wide disk in the central portion of the can bottom.

As described above, the can body of the claimed invention has a shape for improving the pressure resistance by a thinner plate, and a shape having a tap test aptitude in addition to the improvement of the pressure resistance performance. The can body of the claimed invention as described above is not readily thought out from Lyu, and this is novel and nonobvious over Lyu.

In view of the foregoing, reconsideration of the application and allowance of the pending claims are respectfully requested. Should the Examiner believe anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' representative at the telephone number listed below.

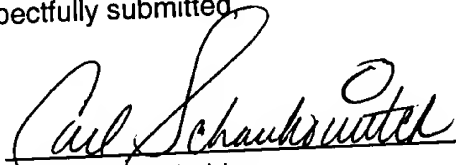
Should additional fees be necessary in connection with the filing of this paper or if a Petition for Extension of Time is required for timely acceptance of the same, the Commissioner is hereby authorized to charge Deposit Account No. 18-0013 for any

such fees and Applicant(s) hereby petition for such extension of time.

Respectfully submitted,

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Enclosure(s):

Appendix I (Marked-Up Version of Amended Claims)
Petition for Extension of Time (one month)
Request for Continued Examination

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